Project Code and Title

B.02.01.05: Maintenance of Biomechanics Data Base

Project Objective

To provide for necessary analytical and computer services in order to maintain the information contained within the Biomechanics data base. It is also to perform analyses of data within the biomechanics data base in order to support programs of the Biomechanics Division.

Background

Under a mandate from Congress, the NHTSA has created a team of medical, biomechanical engineering and crash injury statistics researchers to advance the scientific understanding of crash injuries and identify potential countermeasures to mitigate injuries and their consequences.

Problem Definition

Biomechanical research requires largest amount of data be collected, organized, and analyzed. For approximately 10 years the Biomechanics Division has built a data base which currently contains approximately 2700 tests. This data base is a unique resource which no other organization in the world can approach in terms of its size, diversity of tests, and quality of the data. Many NHTSA regulations are based on the information contained within this data base. In order to address biomechanical issues and questions likely to arise during the 90's additional testing will be necessary. This project is needed to insure that NHTSA receives benefit from the information derived from these tests. This work is of a continuing nature, and will be needed throughout the planned period. Additional data and analysis are anticipated due to the chest band, and this will create the need for additional staff to support this activity. Other additions to the information in the Biomechanics Data Base include a data base of physiological results from animal tests conducted by the University of Pennsylvania, the creation of a data base of different views of human anatomy, and the Body Surface Geometry collected from the Anthropometry Project. The contractor staff performing the data base analysis and maintenance are using outdated computer equipment which has reduced their productivity. They will need to have their microcomputers updated to state of the art equipment.

Research Approach

A contractor will supply a staff with computer and engineering background suitable for the analysis, maintenance, and organization of the information within the Biomechanics Data Base. Analysis of information within the data base will be conducted as necessary to insure the integrity of the data, and as necessary to support NHTSA programs.

Potential Impact/Application

All safety standards and agency programs requiring biomechanical data, analysis, and support.

Key Milestones

All works under this project are of a continuing nature.

RESOURCE REQUIREMENTS	FY 92	FY 93	FY 94	FY 95	FY 96
Contract Money ($K)	365	425	560	553	685

Project Manager(s)

Nopporn Khaewpong

Completion Date

March 31, 1997

Supporting Contracts

Task	Contract Number	COTR (phone)	Contracting Officer (phone)	Total Contract Cost ($K)
	DTNH22-92-C-07058	(202)366-4703	Ms. Debra J. Sisson (202) 366-9547	2219